



Solar Technology Roadmap

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Summary of *The Solar Technology Roadmap Act, H.R. 3585*

This bill directs the Secretary of Energy to have a Research, Development and Demonstration program for solar technology, including photovoltaics (PV), Concentrating Solar Power (CSP), solar hot water, solar space heating and cooling, solar lighting, solar manufacturing, and building integrated solar.

Roadmap

The roadmap shall present the best current estimate of the near-term (up to 2 years), mid-term (up to 7 years), and long-term (up to 15 years) research, development, and demonstration needs in solar technology; and provide(s) guidance to the solar technology research, development, and demonstration activities supported by the Federal Government. The Roadmap is subject to comprehensive revision every 3 years may be updated annually as needed.

The purposes of the roadmap are:

- 1) to identify research, development, and demonstration needs for solar technology challenges;
- 2) identify opportunities for coordination with partner industries (such as those for semiconductors, energy storage, Smart Grid, etc.);
- 3) and expedite the process of improving solar technologies by identifying research goals that “improve performance; decrease cost of electricity generated; improve reliability; and decrease negative environmental impacts and maximize the environmental benefits of solar technologies by examining life-cycle assessments of greenhouse gas emissions, energy payback time, and water usage.”

Roadmap Committee

The Secretary of Energy shall appoint members of the Roadmap Committee (the group that creates the roadmap) within 4 months after enactment.

The Roadmap Committee must contain at least 11 members and the members serve 3 year terms. 1/3 of the members of the committee must come from the solar industry. The secretary chooses the chair, but the chair cannot be a federal government employee. There are term limits for committee members so that a large number of different solar experts are engaged over time.

Demonstration Projects

Authorizes the DOE to do at least ten photovoltaic (PV) projects ranging from 1 to 3 megawatts in size and 2 to 3 solar projects (using any solar technology) greater than 30 megawatts in size.



(Solar Technology Roadmap continued...)

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DOE may not provide more than 50% of the funding for any project. Funded projects should help be located in a variety of regions/climates, help with manufacturing scale-up, or help address other major challenges confronting solar technology. The funding for these projects is capped at \$300 million over 5 years.

This purpose of this section is to help jump start solar development and to provide some support for solar projects that demonstrate versatility.

Photovoltaic Performance Study

DOE shall study and publish best practices with respect to siting photovoltaic installations. The purpose is to disseminate information that will help PV systems to perform at their maximum efficiency. It also asks DOE to look at federal, state and local incentives that work to ensure PV systems are performing well.

Program Reauthorization

This section authorizes federal funding for the DOE solar RD&D programs for FY 2011 through FY 2014. It also phases in the alignment of the DOE RD&D programs with the roadmap. \$2 million/year is allocated for the creation of the roadmap to cover administrative costs and any analysis that must be done. This section also reauthorizes solar programs from the Energy Independence and Security Act of 2007.

Photovoltaic Device Recycling Research, Development, and Demonstration

This section establishes a program of RD&D in the reuse, recycling, and safe disposal of photovoltaic devices and substances used in the manufacture of such devices. It also authorizes a program to encourage PV recycling and to fund studies for the use of environmentally responsible materials in PV.

Existing Programs and Repeals

Except as otherwise specified in this Act, this Act shall supersede any duplicative or conflicting solar RD&D programs within the DOE.

This section repeals outdated solar legislation from the 1970s, so that this bill will become the new baseline for the DOE solar program. The one provision that is not repealed is Sec. 10 of the Solar Energy Research, Development, and Demonstration Act of 1974, which established the national laboratory that is now NREL.

For full bill information, please see www.thomas.gov, H.R. 3585